

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000940**Date Inspected:** 15-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Ye Yong Jun, Li Wen Sheng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** CalTrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-ups 89.00 and 114.00 for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 89M Strut Plate Splice			In Progress
Caltrans QA Inspector observed Submerged Arc Welding (SAW) in progress of fill passes on strut plate splice weld on plate's p209-2 to mp516-2. The weld joint is a Complete Joint Penetration (CJP) double bevel butt-joint in the 1G position. The approved welder Gu Caihong #053748 was using approved welding procedure specification WPS-B-T-4221-B-U3-5. Caltrans QA Inspector measured current welding parameters at approximately 585 amps, 30 volts and 452 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW welding consumable is identified as LA-85 ENT5 and MIL800-HPNI flux. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Ye Yong Jun and Bureau Veritas Inspector Mr. Zhang Xu Liang were observed monitoring welding activities at the work station.			
2 114M Longitudinal Stiffener plate to Interior Splice Assembly			In Progress
Caltrans QA Inspector observed flux cored arc welding (FCAW) in progress of stiffener plate p920-1 to Interior Splice plate A75 and p920-9 to A67. The weld joints are Complete Joint Penetration (CJP), double bevel T-joints. The welders are observed welding filler passes in the 1G position using a chipping hammer and wire brushing during interpass weld cleaning. The approved welder is identified as Mr. Xu Bo # 040427 and Mr. Chen Xi #040261. The welders were using			

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

welding procedure specification WPS-B-T-2231-TC-U5-F, Revision. Caltrans QA observed ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Lu Jian Ping and Bureau Veritas Inspector, Mr. Zhang Xu Liang monitoring welding activities at the workstation. Caltrans QA measured current welding parameters at approximately 290 amps, 31 volts and 323 millimeters per minute (mm/min) travel speed for Mr. Chen Xi and 310amps, 30.8 volts and 276 millimeters per minute (mm/min) travel speed for Mr. Xu Bo. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches).

Summary of Conversations:

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
----------------------	---------------	-----------------------------

Reviewed By:	Cuellar,Robert	QA Reviewer
---------------------	----------------	-------------
